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ASSESSMENT OF THE EXISTING DISPERSED RECREATION SITUATION
AND
DEVELOPMENT OF SHORT-TERM MANAGEMENT RECOMMENDATIONS
FOR THE
HIAWATHA NATIONAL FOREST
USING A
PROTOTYPE RAPID INVENTORY AND ANALYSIS SYSTEM

PROFESSIONAL DEVELOPMENT
FOR OUTDOOR RECREATION MANAGEMENT
CLEMSON UNIVERSITY

BY
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HIAWATHA NATIONAL FOREST
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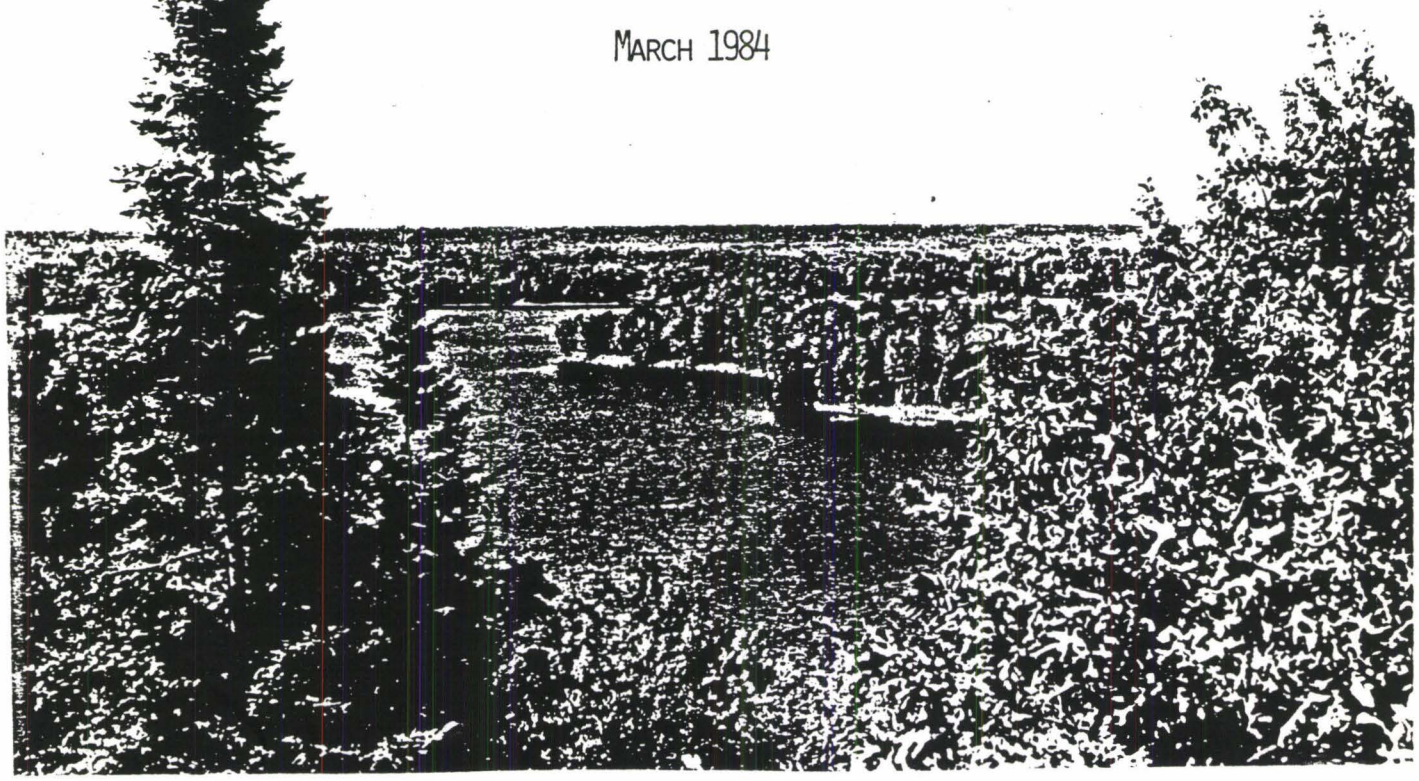

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Enclosed is a copy of the project that I have prepared as part of the Clemson University's Professional Development For Outdoor Recreation Management short-course. I am looking forward to the review session on May 4. If you have any questions or comments prior to the review, don't hesitate to contact me.

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Enclosure

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CHAPTER 1

INTRODUCTION AND STATEMENT OF PROBLEM

The dispersed recreation management program on the Hiawatha National Forest is a minimally funded soft-target program that receives little attention. Management activity is limited to paperwork on most of the Forest. However, things are changing.

In 1982 under the Reagan administration, the USDA-Forest Service committed itself to providing a broad range of recreation opportunities for the public with increased emphasis on dispersed recreation opportunities while maintaining existing levels of developed recreation opportunities. The fact that dispersed recreation had been made an emphasis item was fairly surprising in itself, but the most important aspect of this agency policy was the commitment to the philosophy of providing a broad range of recreation opportunities. This was an important step in the evolution of Forest Service recreation management. Even though this philosophy had been institutionalized by the Forest Service in 1980 as the Recreation Opportunity Spectrum (ROS) and adopted into the Forest Land Management Planning process (FSH 1909.12), little had been done to put it to work on the ground prior to it becoming an emphasis item. Unfortunately, on the Hiawatha National Forest not much more was done after dispersed recreation became an emphasis item either. There are numerous reasons why little occurred on the ground. The primary causes were funding and manpower cuts, lack of line support, and the debilitating effects of Land Management Planning.

It is not important at this point in time to be concerned with why the management of dispersed recreation had not improved. Instead we should be concerned with what was happening to the dispersed recreation resource on the Forest. Several trends were evident:

- Motorized recreation use was increasing rapidly.
- Motorized access was available to almost all areas of the Forest.
- Many use areas were suffering resource damage.
- Winter use was increasing.
- Water oriented sites were the most popular.
- Little was being done to control or monitor use on most of the Forest.
- The management efforts that were occurring were in response to undesirable activities or impacts rather than in anticipation of them.

Over time there was a growing recognition that dispersed recreation was essentially uncontrolled on the Hiawatha. Many of the prime areas were receiving so much use that the availability of recreation opportunities dependent upon solitude and unimpacted settings were steadily declining. All this was occurring during a period of time when dispersed recreation management should have been actively working to increase the availability of a broad range of recreation opportunities.

STATEMENT OF THE PROBLEM

During the summer of 1983 a crisis point was reached in the dispersed recreation program. It was brought about by the realization that the existing program (with the noteable exception of one District) was so lacking in direction, standards, continuity, use information, ~~etc.~~, that it was not possible to adequately contribute to the Land Management Planning process. As a result, dispersed recreation could not be fully integrated into the planning and allocation process. An assessment of dispersed recreation management on the Forest revealed the following:

A. Most Districts have a limited knowledge of what dispersed recreation activities are occurring. Two of five Districts have any sites inventoried with a total of 62 between them. Of this 62, 34 are found along a thirty mile stretch of the Indian River and the remainder are on 3 inland lakes. Considering that the Hiawatha has 280 inland lakes over 10 acres, over 1,000 inland water bodies less than 10 acres, over 1,400 miles of rivers and streams and borders three of the five Great Lakes, it is obvious that there is a severe information shortage concerning existing dispersed recreation activities.

B. There is inconsistent management of similar dispersed recreation sites and areas between Districts. One District of five has developed a permit/reservation system to manage their most popular lakeside campsites. Two Districts are constructing 'primitive' facilities at some sites.

C. Environmental carrying capacities for dispersed recreation activities are presently unknown for virtually the entire Forest.

D. There are no accepted standards and guides on what management levels, amounts of use, or facilities are appropriate to various recreation experiences.

E. There has been no determination of what amounts and types of recreation experiences should be offered to the public and where.

F. Manpower and funding for dispersed recreation work is currently quite limited.

It was apparent that it was time to develop and institute an effective dispersed recreation management program on the Hiawatha National Forest. To accomplish this, a dispersed recreation

management program review with an objective of developing a new program was submitted in the Forest's FY '84 Program of Work. However, it was not approved due to the amount of higher priority hard target work and the lack of manpower. It was obvious that the program could not be allowed to continue in its current condition for another year. Additionally, the opportunity to fully participate in the Land Management Planning process required the immediate acquisition of specific information on existing use. In response to this situation and in anticipation of the future development of a dispersed recreation management program, the following project was developed:

HIAWATHA NATIONAL FOREST DISPERSED RECREATION MANAGEMENT SHORT-TERM NEEDS

A. Identify and inventory existing and potential dispersed recreation use on the Forest.

B. Maintain or increase the current level of dispersed recreation opportunities without compromising future management alternatives.

C. Make management of similar sites and areas consistent throughout the Forest.

D. Identify existing or potential resource damage and maintenance work and correct or prevent it.

E. Identify long-term program needs.

F. Accomplish A-E as quickly and economically as possible.

OBJECTIVES:

It is the intent of this paper to present three interrelated items:

restate

A. A rapid inventory and analysis system that was used to quickly and inexpensively assess existing dispersed recreation use within the study area and aid in the development of site specific management direction.

B. The development of short-term dispersed recreation management recommendations responsive to Forest needs.

C. The development of long-term dispersed recreation management needs that will act as the basis for future program development work.

This project should be directly applicable to Lake States Area National Forests and other public lands with physical and social settings similar to the Hiawatha National Forest. This project should also be valuable as a guide to developing similar processes in areas that have different physical and social settings.

HYPOTHESES

A. The primary hypothesis behind the rapid inventory and analysis process is that there is enough accumulated knowledge about existing dispersed recreation activities that it is possible to inventory the majority of sites worthy of management concern without going into the field. This is based on hypothesis #B and basic assumption #B.

B. The accumulated knowledge about existing dispersed recreation activities is stored primarily in the brains of Forest employees. Whatever written and mapped data exists was primarily accumulated while studying resources other than dispersed recreation. The combination of the two types of sources will yield substantial data.

C. It is possible to develop appropriate management recommendations based upon information that is limited to key aspects of the subject in question.

DELIMITATIONS

A. The study area selected is located on the West Unit of the Hiawatha National Forest (Figure 5, page 21). It is a heavily forested, rolling area that contains the majority of inland lakes found on the Hiawatha and a number of high quality rivers and streams. Most of the Forest's overnight dispersed recreation occurs in this area. The area is composed of twelve townships containing 276,500 acres of land. The townships included are T42-45N, R17-19W.

B. The inventory was limited to the following types of sites:

Campsites
Boat and Canoe Access Points
Fishing and Hunting Parking Sites
Picnic, Party, and Berry Picking Sites
Trails, general day use areas, wood and food gathering areas, scenic routes, etc. were not inventoried.

BASIC ASSUMPTIONS

A. There is a limited land base available on the Hiawatha National Forest. Within this land base there is a limited number of lakes, rivers and streams. If the Forest Service wishes to provide a broad range of recreation opportunities to the public, not all lands, lakes, rivers and streams will offer the same recreation opportunities. To ensure this, the Forest Service will have to exercise some sort of management. To manage appropriately, knowledge of what is to be managed is required. This study provides some of that knowledge. This study is needed.

B. The Hiawatha National Forest has been heavily impacted by modern man. Since the 1800's the land has been continually used. Virtually every square foot has been walked on. Virtually every source of value or interest has had a road or railroad built to it, through it,

or past it. This includes lakes, rivers and streams and continues to be true today. Accordingly, there are few places of dispersed recreation value or interest that are not known and currently being used on the Hiawatha.

C. The dispersed camping permit/reservation system used on the Manistique Ranger District is considered to be a valid system with appropriate management controls (Appendix A).

D. 'Code-A-Site: A System to Inventory Dispersed Recreation Sites in the Eastern Region', Eastern Region, USDA-Forest Service, July 1980, is the best dispersed recreation inventory system presently available to the Hiawatha National Forest.

LIMITATIONS

Due to time limitations and the fact that the rapid inventory and analysis system was developed during snow season, it was not possible to field check the accuracy of inventory data collected, or the validity of the management recommendations. Additionally, due to the limited project area on National Forest Lands, the applicability of this system under different management practices or different environmental conditions may be limited.

CHAPTER 2

PROCEDURES

THE RAPID INVENTORY AND ANALYSIS SYSTEM

The objective of the Rapid Inventory and Analysis System is to collect information on a large number of use areas in a short period of time and to systematically identify like and unlike trends, conditions, needs, etc. for the purpose of recommending management direction. This system is based on the Forest Service Eastern Region Code-A-Site system and is not intended to replace it, but to supplement it. The primary features of the Rapid Inventory and Analysis System are as follows:

A. It is an office rather than a field inventory. This represents a tremendous savings in travel time normally associated with field inventories.

B. The amount of information collected is reduced to the minimum amount necessary to accurately describe the primary site uses, features, and their condition. Emphasis is placed on determining social carrying capacity and whether physical carrying capacity has been exceeded in any way. (It is recognized that actual physical carrying capacity can only be determined on-site and that it relates to the site plus all associated use areas.)

C. Some information items have been converted to Recreation Opportunity Spectrum (R.O.S.) in order to provide a more direct link with current and future management systems.

D. Only specific use sites are inventoried. They are campsites, boat and canoe access sites, hunting and fishing parking sites, and berry picking, party and picnic sites.

E. Information is collected on modified Code-A-Site forms called 'Shortforms'. The two forms are essentially identical making information transfers simple.

F. Site information is summarized on "Shortform Summary" sheets that allow the user to manually review large amounts of information rapidly.

The following section describes how to perform the inventory portion of the Rapid Inventory and Analysis System.

INVENTORY PROCESS

The inventory portion of the Rapid Inventory and Analysis System consists of three separate stages: (A) Pre-Inventory; (B) Mapping and Inventory; and (C) Treatment of Data.

A. PRE-INVENTORY - This work consists primarily of becoming familiar with the process, collecting reference and mapping materials, and scheduling times and places to perform inventory and mapping work with key information sources. Much information exists on dispersed recreation sites. However, most of it is unrecorded and that which is recorded is in various formats. The following are some recommended sources available on most National Forests:

1. People knowledgeable with the area. This can include virtually anyone on the Forest. The best sources are usually District personnel who have been on the District for several years and are active outdoorspersons. Compartment examiners, recreation technicians, and fish and wildlife personnel see as much of the Forest as anyone.

2. Recreation Opportunity Spectrum (ROS) inventory. This should provide the locations and standard of all travelways. Additionally, it should provide many site locations.

3. Timber compartment folders should contain information on both recreation use areas and travelways.

4. Fisheries lake maps and lake and river management plans should contain access points and some use area information.

5. Aerial photos often will show travelways and use area that are otherwise unmapped.

6. National Forest Recreation System (NFRS) - This document will show existing and potential use areas and travel routes as of the early 1950's. Many of the same sites are still in use.

When scheduling times and locations to perform inventory and mapping work, be sure to obtain a large working area and substantial time commitments from the people you will be working with. One should have all available mapped and written reference sources when mapping and completing shortforms to assist in accurately mapping sites and to serve as memory stimuli. It should also be recognized that people, not existing reference materials, will provide the vast majority of the information needed to make this rapid inventory technique successful.

B. MAPPING AND INVENTORY - This stage involves collecting, documenting, and mapping dispersed recreation site information. The following materials will be needed:

Reference Materials (ROS, RIM, compartment folders, lake plans, air photos, NFRS, etc.)

Mapping key (Figure 1, page 12)

½" = 1 mi. township maps

"Code-A-Site: A System to Inventory Dispersed Recreation Sites in the Eastern Region," Eastern Region, Forest Service, USDA, July 1980.

Code-A-Site Shortforms (Figure 2, page 14)

Code-A-Site Shortform and mapping directions (Pages 11 - 19)

Template with small circle (5/64" recommended)

Straight edge

Pencil (0.5mm recommended)

Fine point pen w/black ink (No. 1 or 2 technical pen recommended)

Fine point felt tip pen w/brown ink

Inventory Summary Sheets (Figure 3, page 17).

B-1. Mapping

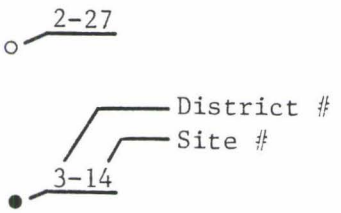
Mapping and completing the shortform inventory sheets should occur concurrently. Recreation sites and use areas should be mapped on 2"=1 mile township maps using the map key shown in Figure 1. Sites should be mapped using a systematic approach whenever possible. One system involves mapping the individual townships in a prescribed order and also mapping the sections within the townships in numerical order. This will ensure complete coverage of the study area during the inventory and will assist in rapidly locating specific sites after the inventory is complete. During the initial inventory mapping, pencil should be used. Upon completion of the inventory, the maps should be remade using ink.

FIGURE 1. CODE-A-SITE MAP KEY

Site Symbols (Black Ink)

Day use site
- boat/canoe access
- fishing/hunting parking
- picnic, party, berry picking

Overnight use site
- camping



Access Routes (Brown Ink)

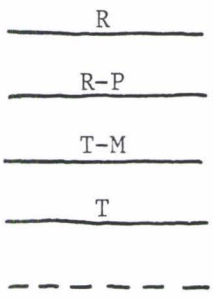
Road (better than primitive)

Road - primitive

Trail - mechanized

Trail nonmechanized

Water access



2b. Inventory

The inventory is recorded on Code-A-Site Shortforms (Figure 2). This form is based on the USDA-Forest Service Eastern Region Handbook "Code-A-Site: A System to Inventory Dispersed Recreation Sites in the Eastern Region," July 1980. It is strongly recommended that one becomes familiar with the entire process before filling out the shortforms.

To fill out the shortform, consult the Code-A-Site Handbook for directions pertaining to each of the following items. Please note that additional direction is included below for some items. Also note that only the nonshaded items on the shortform need to be filled out.

Item	Direction
District	List District number first followed by the site number. Each District will assign their site numbers starting with 1 and proceed from there. Example: The Rapid River District number is 1. Sites on the District will be labeled as follows: 1-1, 1-2, 1-3...
Twp., Range, Section	Self-explanatory.
Dot	The rectangle divided into quadrants following the word 'Dot' represents a section and its quarter sections. Make a dot in this rectangle that represents the site location.
Upper Center Space	A. List descriptive site name. Example: Trout Lake Campsite Indian River Boat Access FR 2212 Hunt Camp Blue Creek Fishing Parking B. List existing management controls, if any: permit site, reservation site, fee site, etc. C. If it is a boat or canoe access, list what type:

FIGURE 2

STATE _____ (NAME AND NUMBER) COUNTY _____ (NAME AND NUMBER) FOREST _____ (NAME AND NUMBER) DISTRICT _____ (NAME AND NUMBER)

TOWNSHIP _____ RANGE _____ SECTION _____ DOT [ ] RIM COMPOSITING AREA CODE _____

RIM SERIAL # _____ RIM KIND CODE _____ DATE CODED _____ CODED BY _____

CODE-A-SITE SHORTFORM

PLEASE READ CODE BOOK PRIOR TO USING THIS CARD

Y12229X

AREA (1): WILDERNESS | WILD & SCENIC RIVER | DISPERSED AREA | SPECIAL CLASS. (SPECIFY)

USE (2): SEASONALLY (SPECIFY) | YEAR AROUND | DAY USE | OVER NIGHT

GENERAL ACCESS (3): TRAIL | ROAD | RIVER | LAKE | OTHER (SPECIFY)

ROAD ACCESS (4): STATE, COUNTY, TWP UNPAVED | PAVED; F.S. SYSTEM ROAD UNPAVED | PAVED; DRY | OTHER (SPECIFY); SEASONAL CLOSURES ← YES NO ☐ (SPECIFY)

TRAIL ACCESS (5): NATIONAL SCENIC/HIST | NAT. REC. TR (SPECIFY); CONNECT TO NAT. SYS. TR | UNDER STUDY (SPECIFY); OTHER (SPECIFY); 1 | 2 | 3 | 4 | ABANDON | MTC LEVEL

SITE DISTANCE FROM ACCESS WAY (FEET) (6): 0-50' | 51-100' | 101-200' | > 200'

SITE DEV. (7): EXISTING | POTENTIAL; 1 | 2 DEVELOPMENT LEVEL

WATER SITE LOCATION (8): GRAVEL BAR | ISLAND; WATER LEVEL | ABOVE W.L.

SITE SCREENING (9): NONE | LIGHT; MODERATE | HEAVY

TENTS (10): SUITABILITY ← YES NO ☐; 2 | 4+ NO OF TENT SPACES _____

WATER CRAFT (11): SUITABILITY ← YES NO ☐; 2 | 4+ NO OF BOAT SPACES _____

MOTOR VEHICLES (12): SUITABILITY ← YES NO ☐; 2 | 4+ NO VEHICLE SPACES _____

SITE ORIGIN — STATUS (13): OFFICIAL | USER ESTABLISHED; UNIMPROVED | MINOR IMPROVEMT; MAJOR IMPROVEMT | SPECIAL FACILITY

OTHER SITES (14): 1 | 3 | 6 | + NO IN VIEW _____; 1 | 3 | 6 | + ½ MILE _____

SITE CAPACITY (15): 2 | 4 | + NO OF PARTIES _____

KEY # | USE THIS AREA WHEN SPECIFICS ARE REQUIRED OR TO RECORD ADDITIONAL DATA

ADDITIONAL NOTES ON REVERSE ☐

SCHEMATIC DRAWING

USE BOX TO MAKE A ROUGH SKETCH OF SITE

INDICATE POSSIBLE TENT (X) AND VEHICLE (O) SPACES

INDICATE SCALE

N

MANAGEMENT CONCERNS (32): LITTER AND SOLID WASTE; HUMAN AND ANIMAL WASTE; WATER POLLUTION; FIRE; FLOODING; HAZARDS TO USERS (SPECIFY); USER CONFLICTS (SPECIFY); LAW ENFORCEMENT (SPECIFY); RESOURCE DAMAGE (SPECIFY); OPERATION MTC PROBLEM (SPECIFY); OTHER (SPECIFY)

RIM FACILITY CONDITION (31)	2	1
	4	3
	6	5
	8	7
ANNUAL USE CVDS (30)	1-2	<1
	5-10	3-5
_____	>20	10-20
FREQUENCY OF USE (29)	WEEKLY	DAILY
	MONTHLY	OCCASIONALLY
IMPACT OF USE (28)	EXTREME	HEAVY
	MODERATE	LIGHT
TYPE OF IMPACT (27)	HORSE	MAN
	OTHER (SPECIFY)	ORV'S
GROUND COVER (PERCENT) (26)	26-50	1-25
	76-100	51-75
CROWN COVER (PERCENT) (25)	26-50	1-25
	76-100	51-75
SIZE OF SITE (SQ FEET) (24)	100-200	<100
	>300	201-300

SITE SUITABILITY (23): OK AS IS; NEEDS WORK (SPECIFY); SHOULD BE ELIMINATED (SPECIFY); POTENTIAL TO ADD SITES OR IMPROVEMTS

FACILITIES (22): POTABLE WATER (SP); SHELTER; INFORMATION SIGNING; FIREPLACE # _____; TABLE # _____; TOILET # _____; OTHER (SPECIFY)

TOILETS (21): PIT STRUCTURE | PIT; COMPOST | VAULT

WATER (SPECIFY LOCATION) (16): ON SITE ← YES ☐ NO; OFF SITE ← YES ☐ NO; STREAM; SPRING; LAKE

FIREWOOD/STOVES (17): ALL YEAR; SEASONAL (SPECIFY); FIREWOOD AVAILABLE ← YES ☐ NO; FIREWOOD ON SITE ← YES ☐ NO; CAMP STOVES ONLY

R.O.S. CLASS (18): PRIMITIVE; SEMI PRIMITIVE NON MOTOR; SEMI PRIMITIVE MOTOR; ROADED NATURAL; SEMI URBAN; URBAN

ATTRACTIONS AND OPPORTUNITIES (19): BERRY PICKING; BOAT LAUNCH; BOATING MOTOR; BOATING NON MOTOR (SPECIFY); CANOEING; CAVES; CLIFFS; CLIMBING; FIREWOOD CUTTING; FISHING; 4 WHEEL DRIVING; HIKING; HISTORIC SITES; HORSE FACILITIES; HUNTING; MOTORCYCLING; PICNICING; ROCK COLLECTING; SCENERY; SPRINGS; SWIMMING; SNOW MOBILING; WILD LIFE; X CTRY SKI

SOLITUDE LEVEL (20): GOOD; FAIR; POOR

10

14

Item	Direction
	1. Carry-in over 100' 2. Carry-in less than 100' 3. Boat or canoe slide 4. Unimproved back-in 5. Improved back-in D. Write in any specifics required to complete the numbered items on this form. List the number of the item in the Key # column before filling in the line.
10. Tents	Disregard the 2 and 4+ boxes. Write in the number of spaces.
11. Watercraft	Disregard the 2 and 4+ boxes. Write in the number of spaces.
12. Motor Vehicles	Disregard the 2 and 4+ boxes. Write in the number of spaces.
14. Other Sites	See Code-A-Site directions.
15. Site Capacity	See Code-A-Site directions.
16. Water	See Code-A-Site directions.
19. Attractions	See Code-A-Site directions.
20. Solitude	See Code-A-Site directions.
21. Toilets	See Code-A-Site directions.
22. Facilities	See Code-A-Site directions.
23. Site Suitability	See Code-A-Site directions.
28. Impact of Use	See Code-A-Site directions.
29. Frequency of Use	See Code-A-Site directions.
32. Management Concerns	See Code-A-Site directions.

C. TREATMENT OF DATA - Once inventory data has begun to accumulate it is time to display it for analysis. One wishes to be able to quickly compare similarities and differences between the individual use areas manually. To facilitate this, the information gathered on the shortform inventory sheet is further condensed into eight primary information categories on the shortform inventory summary sheets as shown in Figure 3. These eight categories are sufficient to accurately classify like and unlike sites and conditions for the purpose of making management recommendations:

1. Descriptive Site Name - This category indicates primary use, day or overnight use, and water relationship. This information is derived from the inventory information in the upper center space and items 2.-Use and 16.-Water.

2. Use - This category is separated into Daily and Weekly use with a nonresponse signifying either monthly or occasional use (which usually does not generate management needs). This information is derived from inventory item 29.-Frequency of Use.

3. Work Needs - This category reflects responses from 23.-Site Suitability, 28.-Impact of Use, and 32.-Management Concerns inventory items that indicate if the carrying capacity of the site has been exceeded. Resource treatment indicates unacceptable environmental damage. 'Maintenance' indicates that site improvements cannot adequately handle current use. No response indicates no problem.

4. Capacity - Inventory items 10.-Tents, 11.-Water Craft, 12.-Motor Vehicle, and 15.-Site Capacity all contribute to defining current site capacity which is recorded as '1 Party', '2 Party', or '3+ Parties'.

SHORTFORM SUMMARY

SITE #	DESCRIPTIVE SITE NAME	USE		WORK NEED		CAPACITY			MAJOR CHANGE		EXISTING REC. DEVELOPMENT LEVEL			SOCIAL SETTING			ACCESS			
		DAILY	WEEKLY	RESOURCE TREATMENT	MAINTENANCE	1 PARTY	2 PARTIES	3+ PARTIES	IMPROVE	CLOSE	LEVEL 1	LEVEL 2	LEVEL 3	1-3 IN VIEW-½ MI.	4-6 IN VIEW-½ MI.	7+ IN VIEW	ROAD	ROAD- PRIMITIVE	WATER	
	are 1-3 parties appropriate? Because it is lowered last																			

5. Major Change - Sites that have the potential for or already need major management change are indicated as 'Improvement' or 'Close' and are derived from inventory item 19. Attractions and Opportunities and 23.-Site Suitability.

6. Existing Recreation Development Level - Recreation Development levels 1 and 2 are currently associated with dispersed recreation while level 3 usually denotes developed recreation. Inventoried sites are separated into one of these subcategories based on information found in inventory items 15.-Site Capacity, 20.-Solitude Level, 21.-Toilets, 22.-Facilities, and 3.-General Access.

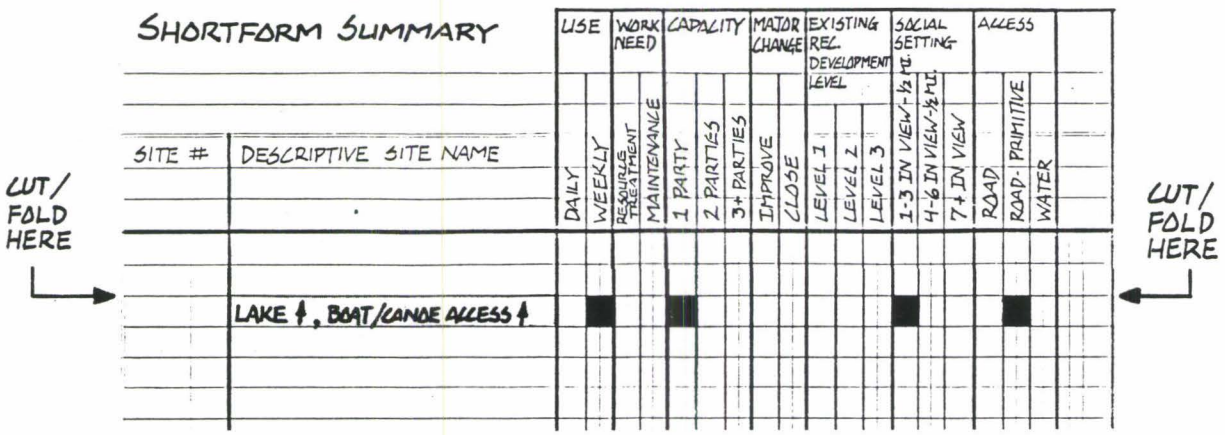
7. Social Setting - This category is divided into three subcategories based on Recreation Opportunity Spectrum criteria. They are: '1 to 3 Intervisible-½ Mi.', 4-6 Intervisible-½ Mi.', 7+ Intervisible. Inventory items 14. Other Sites and 20. Solitude Level are used to determine the social setting which also related to the social carrying capacity of an area.

8. Access - The Recreation Opportunity Spectrum criteria for Road, Road-Primitive, and Water Access are the subcategories used to indicate access. They are taken directly from inventory item 3.-General Access.

When transferring information from the shortform inventory sheets to the summary sheets, a certain amount of interpretation may be required. If this is necessary, it is recommended that one's efforts be directed toward consistency in the case of multiple interpretations.

Upon completion of the inventory summary sheets, the shortform inventory process is complete and the data is ready for analysis and interpretation.

Much of the information on the Shortform Summary sheets can be analyzed by simple counting methods. For example, one part information items such as how many lake campsites there are can be quickly tallied by reviewing the correct information column which in this case is the descriptive site name column. Many two part and even three part items can be tallied by scanning the Summary Sheets and counting the instances where the appropriate responses occur. To derive more complex information the use of keyed line guide is recommended. A keyed line guide can be made by taking a blank Summary Sheet and marking the columns in which the combination of desired responses should appear (Figure 4).



To use the guide either fold the top of the sheet back or cut it off and proceed to review the Summary Sheets one line at a time. The example in Figure 4 would identify all boat and canoe access sites on lakes that receive weekly use, have no resource damage or maintenance needs, have capacity for one vehicle, are accessed by a primitive road and have less than four other use areas visible within ½ mile.

The next chapter presents the actual analysis of data generated through the application of the Rapid Inventory and Analysis System to a study area on the Hiawatha National Forest. A brief description of the study area and inventory methodology will conclude this chapter.

HIAWATHA NATIONAL FOREST RAPID INVENTORY STUDY

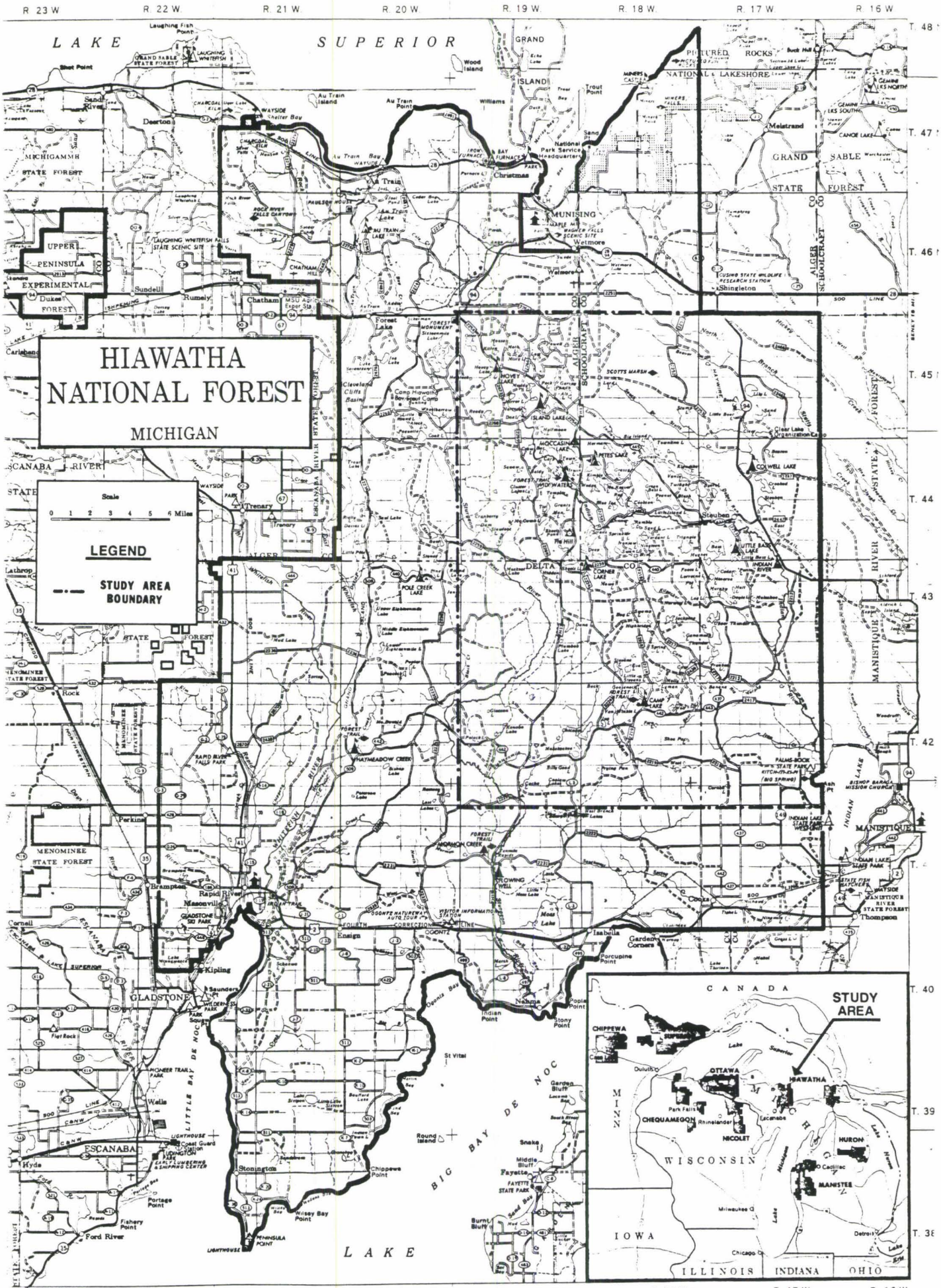
The Rapid Inventory and Analysis System was used to map and inventory a 12 square mile study area located on the West Unit of the Hiawatha National Forest. The study area was townships T42-45N, R17-19W (Figure 5 & Appendix D) which is a heavily forested rolling area containing the majority of the inland lakes on the Hiawatha and a number of high quality rivers and streams. This area has the heaviest concentration of dispersed recreation found on the Forest. Following is a summary of the participants and time required to complete the various stages of the rapid inventory and analysis system.

Preinventory -	
GS-11 Landscape Architect (principal investigator)	2 hrs.
GS-7 Timber Technician	2 hrs.
	4 hrs.
Mapping and Inventory	
GS-11 Landscape Architect	14 hrs.
GS-11 Assistant Ranger - Recreation	6
GS-11 Assistant Ranger - Recreation	4
GS-11 Archaeologist	0.5
GS-11 Hydrologist	0.25
GS-9 Timber Technician	6
GS-7 Timber Technician	10
	40.75 hrs.
Summary Sheet (Appendix B)	
GS-11 Landscape Architect	4 hrs.
TOTAL TIME =	48.75 hrs.
Total Sites Mapped, Inventoried and Summarized =	262
Average Time/Site =	12/min./site

(Travel time involved in the entire process was 4 hours.)

In the next chapter, the Summary Sheets (Appendix B) will be analyzed to develop recommended management actions.

FIGURE 5


HIAWATHA
NATIONAL FOREST
MICHIGAN
Scale
0 1 2 3 4 5 6 Miles
LEGEND
STUDY AREA BOUNDARY
LAKE SUPERIOR
LAKE
R. 23 W.
R. 22 W.
R. 21 W.
R. 20 W.
R. 19 W.
R. 18 W.
R. 17 W.
R. 16 W.
T. 48
T. 47
T. 46
T. 45
T. 44
T. 43
T. 42
T. 40
T. 39
T. 38
STUDY AREA
CANADA
WISCONSIN
IOWA
ILLINOIS
INDIANA
OHIO
MICHIGAN
MUNISING
ESCANABA
GLADSTONE
MANISTIQUE
NEWBERRY
Au Train
Christmas
Wetmore
Shingleton
Trenary
Rapid River
Masonville
Ensign
Isabella
Garden Corners
Nahma
Stonington
Fayette
Ford River
Sundell
Rumely
Chatham
Deerton
Sand River
Grand Marais
Munising
Seney
Manistique
Escanaba
Gladstone
Iron Mountain
Menominee
Marquette
Sault Ste. Marie
Duluth
Ottawa
Hiawatha
Chequamegon
Nicolet
Huron
Manistee
Milwaukee
Chicago
Detroit
Cleveland
Toledo
Columbus
Indianapolis
Cincinnati
Louisville
Evansville
Peoria
Springfield
Quincy
Des Moines
Davenport
Cedar Rapids
Waterloo
Dubuque
Minneapolis
St. Paul
Rochester
Duluth
Superior
Thunder Bay
Sault Ste. Marie
Sudbury
North Bay
Toronto
Hamilton
London
Windsor
Detroit
Buffalo
Rochester
Syracuse
Albany
Boston
New York
Philadelphia
Baltimore
Washington
Pittsburgh
Harrisburg
Wilkes-Barre
Scranton
Trenton
Atlantic City
Wilmington
Dover
Richmond
Norfolk
Virginia Beach
Raleigh
Greensboro
Charlotte
Columbia
Charleston
Savannah
Jacksonville
Tallahassee
Atlanta
Birmingham
Montgomery
Mobile
New Orleans
Baton Rouge
Jackson
Memphis
Nashville
Knoxville
Chattanooga
Huntsville
Florence
Tupelo
Oxford
Hattiesburg
Gulfport
Biloxi
Pascagoula
Mississippi Sound
Gulf of Mexico
Lake Michigan
Lake Huron
Lake Erie
Lake Ontario
Lake Superior

CHAPTER 3

ANALYSIS OF DATA

In the previous chapter, the inventory portion of the Rapid Inventory and Analysis System was presented culminating with the displaying of inventoried data on Shortform Summary (Appendix B) sheets. A brief overview of the study area and actual inventory process concluded the chapter. In this chapter, the results of the Hiawatha study area inventory are illustrated in a series of tables that are used to quantify the existing dispersed recreation situation within the study area. Only those areas of immediate concern to the intents and purpose of this project were analyzed. However, the opportunity exists to derive much more pertinent information from the Hiawatha study area inventory summary sheets that will be valuable in future dispersed recreation program management.

Existing Dispersed Recreation Sites

A total of 262 sites were inventoried. It is recognized that there are undoubtedly sites that were overlooked or are presently unknown. This investigator is confident that few, if any, significant sites were overlooked. The sites included in the inventory are composed of the following types and amounts:

DAY USE SITES				OVERNIGHT USE SITES			
Boat/ Canoe Access	Fishing/ Hunting Parking	Picnic, Party, Berry-picking	**Total**	Lake Campsite	River/ Stream Campsite	Upland Campsite	**Total**
71	20	5	**96**	111	46	9	**166**

The most evident trend in these statistics is that many sites have a strong water orientation. A minimum of 75% of the day use sites, 94% of the campsites, and 88% of all sites are water oriented.

(Hereinafter, the day use categories of hunting/fishing parking and picnic, party, berry picking will be combined as 'Other'. Also, the term 'overnight use sites' will be called 'campsites'.)

Use Frequency

	DAY USE SITES			CAMPSITES			
	Boat/ Canoe Access	Other	Totals	Lake Stream →	River/	Upland	Totals
Daily	3	0	3	4	0	0	4
Weekly	29	9	38	63	3	0	66
Monthly/Occ.	39	16	55	44	43	9	96
TOTALS	71	25	96	111	46	9	166

Boat and canoe access sites and lake campsites are the most often used categories with use occurring on a daily or weekly basis on 45% of the boat and canoe access sites and 60% of the lake campsites. Conversely, less than 7% of the river and stream campsites and 0% of the upland campsites are used on a daily or weekly basis.

Resource Damage

In the upper chart, the number of sites with resource damage are shown on the left in each box while the numbers on the right are use frequency data. In the lower chart, the numbers in each box have been converted to percentages.

	DAY USE SITES			CAMPSITES			
	Boat/ Canoe Access	Other	Totals	Lake Stream →	River/	Upland	Totals
Daily	0/3	0/0	0/4	1/4	0/0	0/0	1/4
Weekly	8/29	1/9	9/38	25/63	1/3	0/0	26/66
Monthly/Occ.	11/39	0/16	11/55	7/44	10/43	0/9	17/96
TOTALS	19/71	1/25	20/96	33/111	11/46	0/9	44/166

	DAY USE SITES			CAMPSITES			
	Boat/ Canoe Access	Other	**Totals**	Lake Stream →	River/	Upland	**Totals**
Daily	0%	0%	**0%**	25%	0%	0%	**25%**
Weekly	27%	11%	**24%**	40%	33%	0%	**39%**
Monthly/Occ.	28%	0%	**20%**	16%	23%	0%	**18%**
TOTALS	**27%**	**4%**	**21%**	**30%**	**24%**	**0%**	**27%**

Resource damage occurs 9% more frequently on campsites than day use sites. However, the magnitude of occurrence is more than 100% greater in campsites. Lake campsites with weekly use show the highest percentage of resource damage. Boat and canoe access sites in general and river and stream campsites also show significant occurrences of resource damage.

Maintenance Needs

clarify

In the upper chart, the number of sites with maintenance needs are shown in the upper left of each box while the numbers in the lower right are use frequency data. In the lower chart, the numbers in each box have been converted to percentages.

	DAY USE SITES			CAMPSITES			
	Boat/ Canoe Access	Other	**Totals**	Lake Stream →	River/	Upland	**Totals**
Daily	1/3	0/0	**1/3**	1/4	0/0	0/0	**1/4**
Weekly	9/29	1/9	**10/38**	4/63	0/3	0/0	**4/66**
Monthly/Occ.	2/39	0/16	**2/55**	1/44	4/43	0/9	**5/96**
TOTALS	**12/71**	**1/25**	**13/96**	**6/111**	**4/46**	**0/9**	**10/166**

	DAY USE SITES			CAMPSITES			
	Boat/ Canoe Access	Other	**Totals**	Lake Stream	River/	Upland	**Totals**
Daily	33%	0%	**33%**	25%	0%	0%	**25%**
Weekly	31%	11%	**26%**	6%	0%	0%	**6%**
Monthly/Occ.	5%	0%	**4%**	2%	9%	0%	**5%**
TOTALS	**17%**	**4%**	**14%**	**5%**	**9%**	**0%**	**6%**

Maintenance needs occur more than twice as frequently on day use sites. Boat and canoe access sites with daily or weekly use evidence the greatest occurrence and frequency of maintenance needs.

Access (primary)

	ROAD	ROAD-PRIMITIVE	WATER	TOTALS
Daily	7	0	0	7
Weekly	76	16	12	104
Monthly/Occ.	104	29	18	151
TOTALS	**187**	**45**	**30**	**262**

Seventy one percent of all sites have a road (better than primitive) for their primary access. Roads provide the primary access for 100% of the daily use sites, 73% of the weekly use sites, and 69% of the monthly/occasional use sites.

Primitive roads serve as primary access to more sites than does water. However, 40% of the sites accessed by water receive weekly use compared to 36% of the sites accessed by primitive roads.

Access (heavy use lake campsites)

	ROAD	ROAD-PRIMITIVE	WATER	TOTALS
Lake Campsite with Daily or Weekly Use	45	8	10	63

Seventy one percent of the most frequently used lake campsites have road access (better than primitive). When combined with the finding that lake campsites comprise 40% of all campsites, it becomes even more significant. This is not meant to detract from the fact that 18 of the lake campsites receive heavy use despite (probably because of) having primitive road or lake access. This represents 29% of the most heavily used lake campsites and 11% of all campsites within the study area.

CHAPTER 4

SUMMARY AND CONCLUSIONS

The combined pressures of increased agency emphasis on dispersed recreation management and Forest Land Management Plan information needs dramatized the lack of awareness and direction in the Hiawatha National Forest's dispersed recreation management program. To initiate the upgrading of the Forest's dispersed recreation program, an assessment of existing conditions was needed to form the basis for management actions that would respond to both agency emphasis and LMP needs in a very limited time period. This chapter will present a summary of the inventory process used to access existing conditions, conclusions concerning the existing dispersed recreation management situation, implications of the current situation, short-term management recommendations, and long-term dispersed recreation management program needs.

THE RAPID INVENTORY AND ANALYSIS SYSTEM (A SUMMARY)

The Rapid Inventory and Analysis System is in essence a simplified Code-A-Site inventory that is done in the office. This system limits information gathered to key indicator items with emphasis on social and physical carrying capacity. Analysis of the information gathered documented wide-spread dispersed recreation use throughout the study area and indicated that many lake oriented overnight use sites and boat/canoe access sites are at or have exceeded physical carrying capacities.

CONCLUSIONS

Based upon the findings and within the limitations of this study, the following conclusions have been reached concerning dispersed recreation activity within the study area:

A. Dispersed recreation activity is occurring virtually everywhere but is focused around lakes, rivers, and streams.

B. As a group, day use sites present few management problems at present. Primary needs are focused on erosion control at boat and canoe access sites.

C. Overnight sites are primarily water oriented.

D. Overnight sites that have monthly or occasional use present few management problems at present.

E. Overnight sites that are lake oriented with good access receive the heaviest use. These sites also tend to have higher site capacity, more resource damage, and maintenance needs.

F. Poor access limits use. However, good access currently exists to most lakes, rivers, and streams.

G. Heavy use does not always result in resource damage. Potential for resource damage is primarily a function of physical site carrying capacity.

H. There is strong evidence of public demand for water oriented dispersed recreation with limited access and low site and use densities.

IMPLICATIONS AND OBSERVATIONS

A. Dispersed recreation use within the study area covers a broad range of activities and intensities within settings that are representative of those found throughout the Forest. As such, it is appropriate to consider the conclusions, implications, and recommendations presented in this chapter to be applicable to the Forest as a whole.

B. Many of the conclusions of this study focus on the camping use that is occurring on inland lakes. This type of activity is very much in demand and use is increasing. As can be seen on the study area map (Appendix D), most lakes are receiving considerable use at present and demand exists to use those lakes that currently have little use due to limited access. It would not be difficult or expensive to improve access to most lakes on the Forest. Doing so would increase the availability of lake camping to those who are currently using or desire to use lake sites similar to the heavy use sites currently available. This is a simple solution that has some major flaws.

Remember the reasons that this study was initiated as described in Chapter 1. One reason was agency emphasis to provide a broad range of recreation opportunities for the public with increased emphasis on dispersed recreation opportunities. Providing more drive-in lake campsites would increase opportunities but it would not necessarily be in the interest of providing a broad range of opportunities. In fact, increasing access on a number of lakes on the Forest would actually decrease and possibly eliminate existing recreation opportunities that are dependent upon limited access and solitude.

How does one decide how much of which opportunities to provide? That is partially within the realm of the Forest Plan. The Forest Plan will decide how much of which opportunities to provide on a broad scale. It will still be up to the unit managers to determine exactly where these recreation opportunities will occur. In order to facilitate these decisions, more site specific information concerning existing and potential dispersed recreation opportunities is needed (the other primary reason for conducting this study).

It is the contention of this investigator that the appropriate course for the dispersed recreation program to follow is one where emphasis is placed on holding existing use at current levels and locations while compiling appropriate information to allocate recreation opportunities through the Forest planning process and subsequent site specific implementation. By doing this, no existing recreation opportunities would be foregone without a conscious decision based on adequate information. While this is occurring, actions should be taken to correct resource damage, accomplish legitimate maintenance needs, and adjust use to within the existing physical carrying capacities.

C. This investigator is of the opinion that when dispersed recreation was made an emphasis item it was a case of the Reagan Administration doing the right thing for the wrong reasons. It appears that the primary reasoning behind emphasizing dispersed recreation was that on paper it appeared to be very cost effective. What they didn't realize was that managing all those dispersed RVD's reported in RIM (questionable in itself) didn't cost much because (1) the Forests didn't have much money to manage with, even if the desire and ability had been present; (2) much of the money actually spent on dispersed recreation didn't get reported as such because of the lack of mechanisms to program and accomplish dispersed recreation work; and (3) if dispersed recreation is truly managed both in the field and the office, it will very likely be less cost effective than developed recreation based on the tremendous amounts of travel time and record keeping required to administer large numbers of individual sites that generate no revenues.

SHORT-TERM DISPERSED RECREATION MANAGEMENT RECOMMENDATIONS

The management recommendations included below are based on the assessments, conclusions, and implications presented previously in this report.

A. Complete the Rapid Inventory and Analysis System on the balance of the Hiawatha National Forest.

B. Program and perform all resource treatment work and maintenance work identified in Appendix C-1. Reduce site capacity and/or use season to within site carrying capacities.

C. Increase dispersed recreation opportunities by making existing sites more available through public information, length of stay limits, and increasing reservable sites.

D. Freeze recreation opportunities at existing levels and locations until the Forest Plan allocation is made. Exceptions to this are sites where use needs to be curtailed due to resource damage or maintenance needs.

E. Work closely with timber and engineering to avoid providing access levels that conflict with current or potential (LMP allocated) recreation opportunities.

F. Manage all existing dispersed recreation sites within the following standards and guidelines until they are replaced by the implementation of the Forest Plan.

1. ACTIVE MANAGEMENT - PERMIT/RESERVATION SYSTEM

All sites in this group (Appendix C-2) will be managed under the Manistique reservation system (Appendix A). The lakes/areas in which permit/reservation sites are administered will be closed to overnight use except for permit/reservation sites. These sites will have individually determined site capacities with a maximum capacity of 3 parties (15 people).

Length of stay will be 14 days. The number of sites on a lake/area will be determined on a case-by-case basis.

2. ACTIVE MANAGEMENT - POSTED

The areas in which posted sites are administered will be closed to overnight use by a Forest Supervisor's Order except for open sites. These sites will be available on a first come-first serve basis with a 14 day stay limit. Site capacity will be determined on an individual site basis with a maximum capacity of 3 parties (15 people). The number of sites in an area will also be determined on a case-by-case basis. Both open and closed sites will be posted accordingly. See Appendix C-3 for a listing of open sites.

3. PASSIVE MANAGEMENT

This includes all sites not under active management. Sites will receive no management other than a site review every other year except in the case where resource damage or maintenance needs are present. In this case, work will be performed and inventory will occur annually until either active management is required or the problem is resolved.

G. Perform complete Code-A-Site inventory on all existing Active Management sites (Appendices C-2 & 3) and all sites indicating 'improve' or 'change' on the Summary Sheets (Appendix B).

LONG-TERM DISPERSED RECREATION MANAGEMENT NEEDS

The long-term management needs included below are based on the assessed current situation, basic assumptions, assessment, conclusions, and implications presented previously in this report.

A. Perform complete Code-A-Site inventory on all potential Active Management Sites.

B. Coordinate with Soils, Fisheries, Watershed, Wildlife, Landscape Management, Trails, Lands, and Timber to determine physical carrying capacities of existing and potential dispersed recreation use areas.

C. Develop standards and guides that specify amounts and types of recreation facilities and access appropriate for the various recreation development levels within each Recreation Opportunity Class.

D. Determine the amounts, types, and locations of the dispersed recreation opportunities to be provided for the public on the Hiawatha National Forest.

APPENDIX

A. Manistique Ranger District Reservation System

B. Hiawatha National Forest Study Area Rapid Inventory Shortform Summary

C. Site Specific Management Recommendations

D. Hiawatha National Forest Study Area Map

APPENDIX A

MANISTIQUE RANGER DISTRICT RESERVATION SYSTEM

United States Department of Agriculture
Forest Service
Manistique, Michigan 49854

Reply to: 2300

Date:

Dear Camper:

Once again, the Manistique Ranger District of the Hiawatha National Forest will be designating lakes where permits are required for camping on undeveloped sites. Although the permit system will remain basically the same as last year's program, there are a couple of important changes:

1) Two sites on Leg Lake have been added to the system.

2) Primitive toilets have been constructed at Jackpine Lake (site 3) and Chicago Lake (between sites 3 and 4).

3) The new fee will be $5.00 for each permit issued.

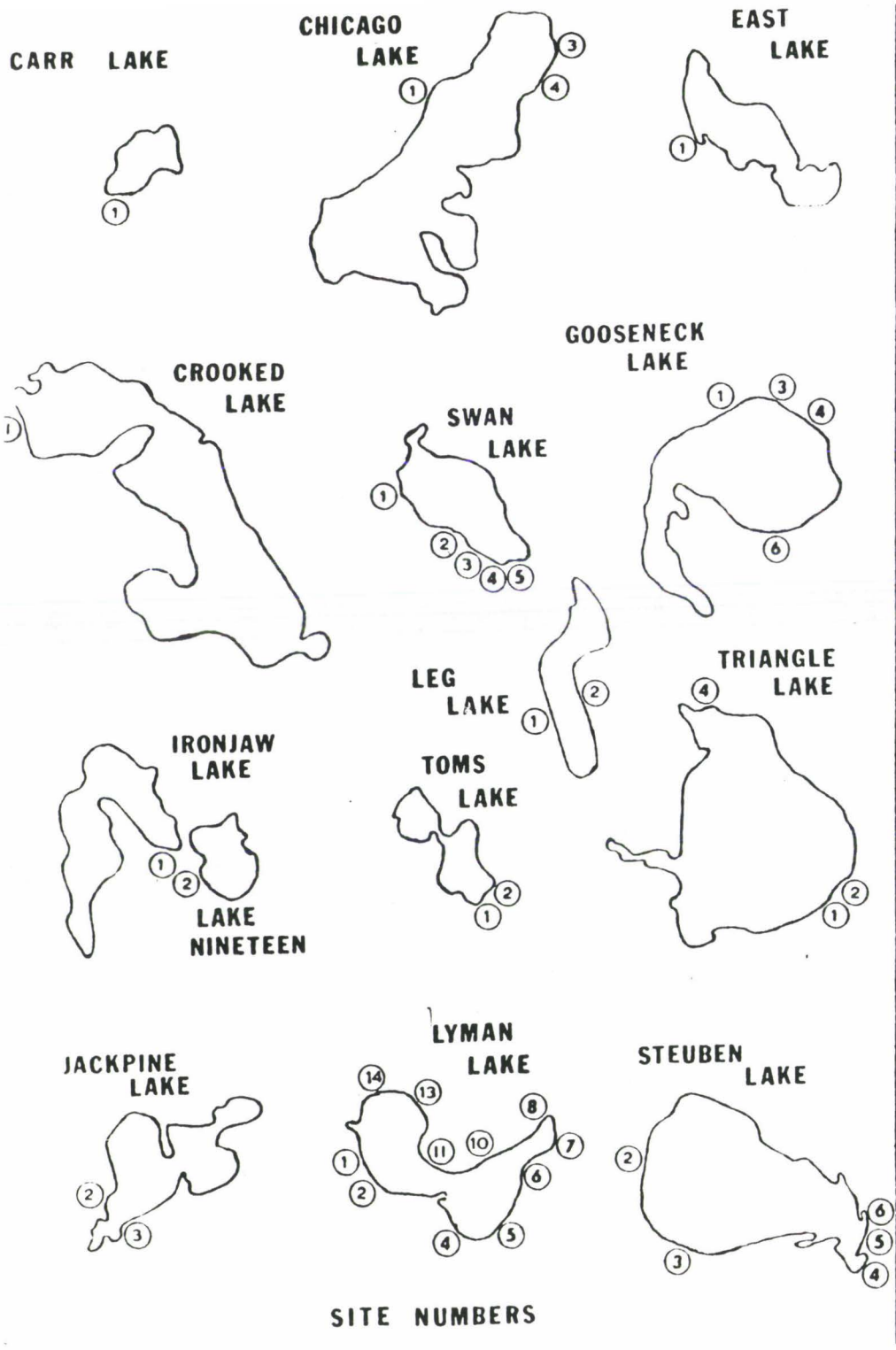
Enclosed you will find a map showing the available sites and location of designated permit lakes. For your convenience a reservation form is also enclosed. Reservations will not be accepted by telephone. If you prefer, permits may also be obtained in person at Forest Service offices in Manistique, Rapid River or Munising, Monday through Friday during normal working hours. During the summer, we hope to provide this service on Saturdays also.

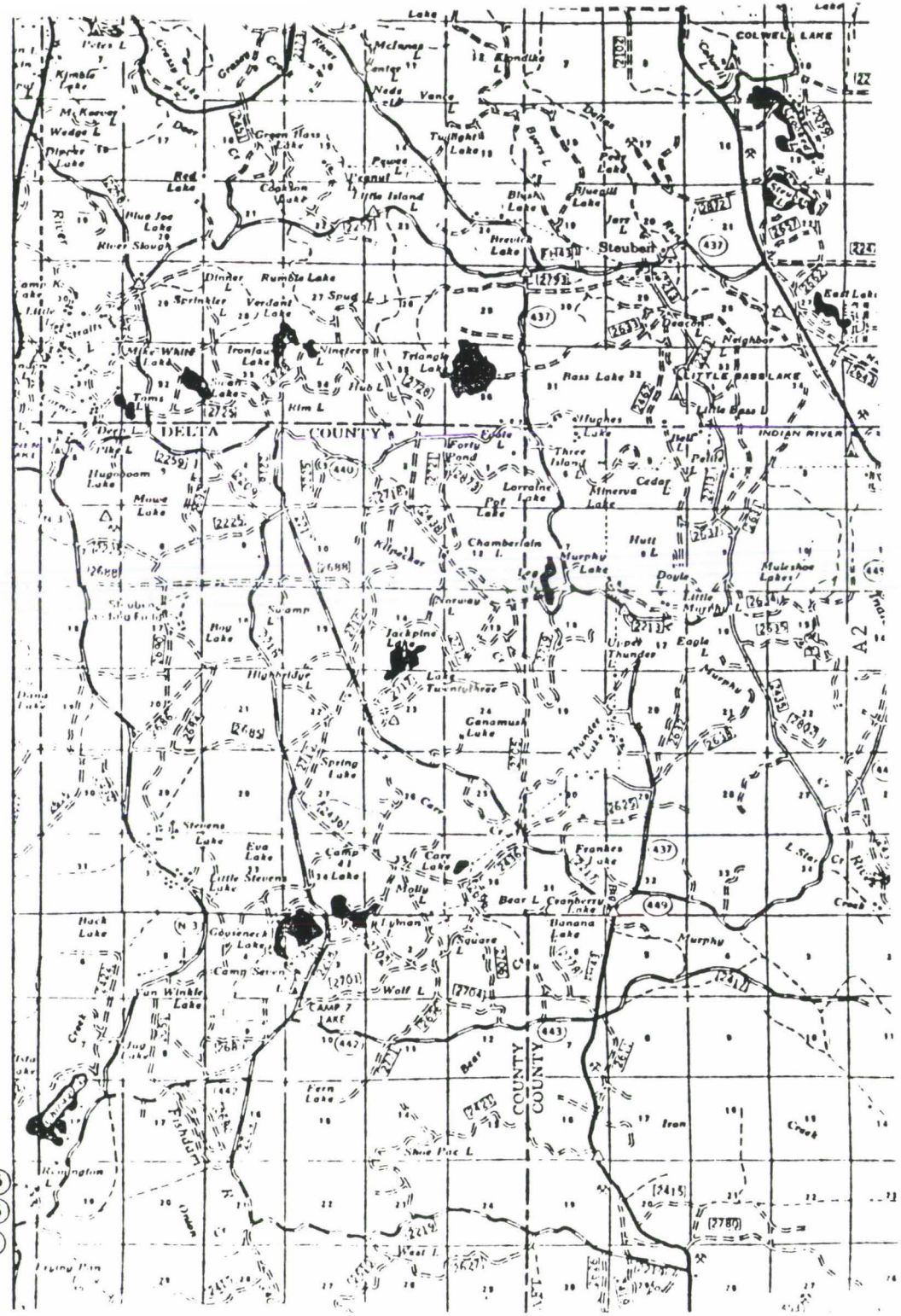
We will begin accepting requests on March 1, 1984 on a first received basis. Please use the enclosed form and list your first, second and third choice of sites/dates. We will reserve the best choice available and send you a permit for that area. If none of your choices are available, your money will be returned.

We believe that the permit system will help to provide you with the type of recreation experience you want. We hope you agree, and look forward to hearing from you in the near future.

Sincerely,

GEORGE H. LYON, JR.
District Ranger


CARR LAKE
CHICAGO LAKE
EAST LAKE
CROOKED LAKE
GOOSENECK LAKE
SWAN LAKE
LEG LAKE
TRIANGLE LAKE
IRONJAW LAKE
TOMS LAKE
LAKE NINETEEN
JACKPINE LAKE
LYMAN LAKE
STEUBEN LAKE
SITE NUMBERS


DELTA COUNTY
Steubert
COLWELL LAKE
LITTLE BASS LAKE
INDIAN RIVER
Jackpine Lake
Lyman Lake
Gooseneck Lake
Camp Seven
Camp 7 Lake
Stevens Lake
Little Stevens Lake
Eva Lake
Spring Lake
Carr Lake
Frankes Lake
Bear L
Cranberry Lake
Banana Lake
Square L
Wolf L
Fern Lake
Fishhook Creek
Carr Creek
Murphy
Genamusk Lake
Thunder Lake
Chamberlain
Murphy Lake
Hull L
Doyle
Norway L
Eagle L
Upper Thunder L
Three Island
Forty Pond
Lorraine Lake
Pot Lake
Minerva Lake
Cedar
Mulcahy Lakes
Little Murphy
Triangle Lake
Tom Lake
Mike White Lake
Ironjaw Lake
Swan Lake
Verdant Lake
Sprinkler
Rumble Lake
Dinder L
Spud L
Green Glass Lake
Twilight Lake
Blue Joe Lake
Red Lake
Clayton Lake
Island L
Bluegill Lake
Jerr L
Hewitt Lake
Beacon L
Neighbor
Ross Lake
Hub L
Kim L
Vinefera L
Ironjaw Lake
Mowe Lake
Hughboom Lake
Dixie L
Little Bass L
Hughes Lake
Duck L
Pike L
Steuben Lake
Hay Lake
Swamp
Hack Lake
Van Winkle Lake
Remington L
Owen
Seal L
Iron
Creek
COUNTY
A2

DISPERSED SITE RESERVATION FORM

Name: _____ Telephone Number: (___) _____

Address: _____ Number in Party: _____

_____

	1st Choice	2nd Choice	3rd Choice
Lake:			
Site:			
Dates:			

1. There is a 14 day limit on length of stay.
2. A $5.00 fee must accompany each site reserved.
3. Fees are not refundable once reservations have been accepted.
4. Checks should be made payable to Forest Service, USDA.
5. Send reservations to Manistique District Ranger, Hiawatha National Forest, Box 220, Manistique, MI 49854.

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APPENDIX B

HIAWATHA NATIONAL FOREST STUDY AREA RAPID INVENTORY SHORTFORM SUMMARY

SHORTFORM SUMMARY

SITE #	DESCRIPTIVE SITE NAME	USE		WORK NEED		CAPACITY			MAJOR CHANGE		EXISTING REC. DEVELOPMENT LEVEL			SOCIAL SETTING			ACCESS		
		DAILY	WEEKLY	RESOURCE TREATMENT	MAINTENANCE	1 PARTY	2 PARTIES	3+ PARTIES	IMPROVE	CLOSE	LEVEL 1	LEVEL 2	LEVEL 3	1-3 IN VIEW-½ MI.	4-6 IN VIEW-½ MI.	7+ IN VIEW	ROAD	ROAD-PRIMITIVE	WATER
2- 1	INDIAN RIVER CAMP/ACCESS							X			X						X		X
2	" " ACCESS		X	X	X			X			X						X		X
3	" " CAMP			X		X				X	X								X
4	" " "			X			X			X	X						X		X
5	" " "			X	X		X				X								X
6	" " "			X		X				X	X								X
7	" " CAMP/ACCESS		X	X	X		X				X						X		X
8	" " " "			X			X				X						X		X
9	" " CAMP			X	X	X			X		X								X
10	" " CAMP/ACCESS			X	X			X			X						X		X
11	" " " "				X	X					X						X		X
12	" " ACCESS		X	X				X			X						X		X
13	" " CAMP			X	X		X			X	X								X
14	" " "			X			X			X	X								X
15	" " "			X	X	X					X								X
16	" " CAMP/ACCESS		X		X	X		X			X						X		X
17	" " " "					X					X						X		X
18	" " CAMP/FISH			X			X				X						X		
19	" " " "						X				X						X		
20	" " CAMP/ACCESS			X		X					X						X		Y
21	BIG MURPHY CREEK CAMP					X					X						X		
22	INDIAN RIVER CAMP/ACCESS			X			X				X						X		Y
23	" " CAMP						X				X								Y
24	" " CAMP/ACCESS					X					X						X		Y
25	BIG MURPHY CREEK CAMP					X					X						X		
26	LYMAN LAKE CAMPSITE #1			X		X						X			X		X		
27	" " " #2		X	X		X						X				X	X		
28	LYMAN LK. CAMPSITE #3 / BOAT LAUNCH		X	X			X			X		X				X	X		
29	LYMAN LAKE CAMPSITE #4		X				X					X				X	X		
30	" " " #5		X	X				X				X				X	X		
31	" " " #6		X				X					X				X	X		
32	" " " #7		X		X			X				X				X	X		
33	" " " #8		X	X			X					X				X	X		
34	" " BOAT LAUNCH		X	X								X				X	X		
35	" " CAMPSITE #9		X	X								X				X	X		

SHORTFORM SUMMARY

SITE #	DESCRIPTIVE SITE NAME	USE		WORK NEED		CAPACITY			MAJOR CHANGE		EXISTING REC. DEVELOPMENT LEVEL			SOCIAL SETTING			ACCESS		
		DAILY	WEEKLY	RESOURCE TREATMENT	MAINTENANCE	1 PARTY	2 PARTIES	3+ PARTIES	IMPROVE	CLOSE	LEVEL 1	LEVEL 2	LEVEL 3	1-3 IN VIEW - ½ MI.	4-6 IN VIEW - ½ MI.	7+ IN VIEW	ROAD	ROAD - PRIMITIVE	WATER
2- 36	LYMAN LAKE CAMPSITE #10		X	X		X						X				X	X		
37	" " " #11		X	X			X					X				X	X		
38	" " " #12		X	X		X						X				X	X		
39	" " " #13		X	X			X					X				X	X		
40	" " " #14			X		X						X		X			X		
41	SWAN LAKE CAMPSITE #1		X	X			X					X		X				X	
42	" " BOAT LAUNCH		X				X					X		X				X	
43	" " CAMPSITE #2		X	X		X						X			X		X		
44	" " " #3		X	X			X					X			X		X		
45	" " " #4		X	X			X					X			X		X		
46	" " " #5						X					X			X		X		
47	STEUBEN LAKE BOAT LAUNCH		X				X					X		X			X		
48	" " CAMPSITE #2		X	X			X					X		X			X		
49	" " " #3		X	X				X				X		X			X		
50	" " BOAT LAUNCH		X			X			X			X		X			X		
51	" " CAMPSITE #4		X	X			X					X		X			X		
52	" " " #5		X	X			X					X		X			X		
53	" " " #6		X				X					X		X			X		
54	TOMS LAKE CAMPSITE		X			X						X		X			X		
55	" " "		X			X						X		X			X		
56	IRONJAW LAKE CAMPSITE		X		X	X						X		X				X	
57	NINETEEN LAKE CAMPSITE		X		X	X						X		X				X	
58	" " "		X			X						X		X					X
59	" " BOAT LAUNCH		X		X	X					X			X				X	
60	IRONJAW LAKE BOAT LAUNCH		X		X	X					X			X				X	
61	SPRINKLER LAKE BOAT ACCESS					X					X							X	
62	RUMBLE LAKE BOAT ACCESS					X					X							X	
63	TRIANGLE LAKE CAMPSITE		X	X			X					X		X			X		
64	" " "		X	X			X					X		X			X		
65	" " BOAT LAUNCH		X	X			X					X		X			X		
66	" " CAMPSITE		X	X		X						X		X				X	
67	MIKE WHITE LAKE CAMPSITE			X		X					X						X		
1 68	INDIAN RIVER BOAT ACCESS						?				X						X		
69	" " " "						X				X						X		
70	" " " "						?				X						X		

SHORTFORM SUMMARY

SITE #	DESCRIPTIVE SITE NAME	USE		WORK NEED		CAPACITY			MAJOR CHANGE		EXISTING REC. DEVELOPMENT LEVEL			SOCIAL SETTING			ACCESS		
		DAILY	WEEKLY	RESOURCE TREATMENT	MAINTENANCE	1 PARTY	2 PARTIES	3+ PARTIES	IMPROVE	CLOSE	LEVEL 1	LEVEL 2	LEVEL 3	1-3 IN VIEW-½ MI.	4-6 IN VIEW-½ MI.	7+ IN VIEW	ROAD	ROAD-PRIMITIVE	WATER
2- 71	EAGLE LAKE BOAT ACCESS		X			X					X						X		
72	MULESHOE LAKE CAMPSITE			X		X					X						X		
73	" " "			X		X					X						X		
74	LITTLE BASS LAKE BOAT ACCESS							X			X						X		
75	" " " " "						X				X						X		
76	" " " " "					X					X						X		
77	THREE ISLAND LAKE BOAT ACCESS							X			X							X	
78	MINERVA LAKE BOAT ACCESS		X		X		X				X							X	
79	CEDAR LAKE BOAT ACCESS			X		X			X		X							X	
80	THREE ISLAND LAKE CAMPSITE																		
81	LEG LAKE GROUP CAMPSITE							X				X		X			X		
82	" " CAMPSITE		X				X					X		X			X		
83	MURPHY LAKE BOAT ACCESS					X					X					X		X	
84	UPPER THUNDER LAKE BOAT ACCESS					X					X						X		
85	" " " " "					X					X						X		
86	FR 2438 HUNTING CAMP							X			X						X		
87	KILPECKER CREEK HUNT & FISH CAMP					X					X						X		
88	" " " " "					X					X						X		
89	THUNDER LAKE HUNTING CAMP					X					X						X		
90	LITTLE MURPHY CR. HUNT & FISH CAMP					X					X						X		
91	INDIAN RIVER HUNTING CAMP							X			X						X		
92	THUNDER LAKE HUNTING CAMP						X				X						X		
93	BEAR CREEK FISHING CAMP					X					X						X		
94	CLEAR LAKE BOAT ACCESS		X					X	X		X						X		
95	BEATON LAKE CAMPSITE		X			X					X						X		
96	" " BOAT ACCESS					X					X						X		
97	STUTTS CREEK HUNTING CAMP					X					X						X		
98	" " " "					X					X						X		
99	COLWELL LAKE BOAT ACCESS		X			X					X						X		
100	CROOKED LAKE BOAT ACCESS		X			X					X				X		X		
101	" " CAMPSITE		X			X					X				X		X		
102	FR 2788 HUNTING CAMP							X			X					X	X		
103	EAST LAKE CAMPSITE		X					X			X				X		X		
104	" " BOAT ACCESS		X				X					X			X		X		
105	" " CAMPSITE						X				X				X				X

SHORTFORM SUMMARY

SITE #	DESCRIPTIVE SITE NAME	USE		WORK NEED		CAPACITY			MAJOR CHANGE		EXISTING REC. DEVELOPMENT LEVEL			SOCIAL SETTING			ACCESS		
		DAILY	WEEKLY	REQUIRES TREATMENT	MAINTENANCE	1 PARTY	2 PARTIES	3+ PARTIES	IMPROVE	CLOSE	LEVEL 1	LEVEL 2	LEVEL 3	1-3 IN VIEW-½ MI.	4-6 IN VIEW-½ MI.	7+ IN VIEW	ROAD	ROAD- PRIMITIVE	WATER
2-106	EAST LAKE CAMPSITE					X					X				X		X		
107	BASS LAKE BOAT LAUNCH		X					X				X					X		
108	" " CAMPSITE					X					X							X	
109	MOWE LAKE CAMPSITE					X					X			X			X		
110	" " "					X					X			X			X		
111	" " BOAT ACCESS		X			X					X			X			X		
112	" " CAMPSITE					X					X			X				X	
113	HUGOBOOM LAKE BOAT ACCESS		X					X			X						X		
114	FR 2218 HUNTING CAMP					X					X						X		
115	NORWAY LAKE BOAT ACCESS					X					X						X		
116	" " CAMPSITE					X					X						X		
117	BOG LAKE BOAT ACCESS					X					X						X		
118	JACKPINE LAKE CAMPSITE		X				X					X		X			X		
119	" " "		X			X					X			X			X		
120	" " BOAT ACCESS		X			X					X			X			X		
121	LAKE TWENTYTHREE CAMPSITE					X					X						X		
122	KILPECKER CREEK HUNTING CAMP					X					X						X		
123	FR 2716 HUNTING CAMP					X					X						X		
124	GANAMUSH LAKE HUNTING CAMP					X					X							X	
125	SPRING LAKE CAMPSITE					X					X							X	
126	UN-NAMED LAKE CAMPSITE					X					X							X	
127	CAMP 41 LAKE CAMPSITE					X					X			X			X		
128	" " " "					X					X			X			X		
129	BEAR LAKE CAMPSITE				X			X			X						X		
130	WINTERGREEN LAKE BOAT ACCESS					X					X						X		
131	CARR LAKE BOAT ACCESS					X					X						X		
132	" " CAMPSITE		X				X				X						X		
133	MOLLY LAKE CAMPSITE					X					X						X		
134	" " "					X					X						X		
135	UN-NAMED POND CAMPSITE					X					X			X			X		
136	" " PICNIC SITE					X					X			X			X		
137	" " BOAT ACCESS					X					X			X			X		
138	GOOSENECK LAKE CAMPSITE		X	X			X					X				X	X		
139	" " "		X			X						X				X	X		
140	" " "		X			X						X				X	X		

SHORTFORM SUMMARY

SITE #	DESCRIPTIVE SITE NAME	USE		WORK NEED		CAPACITY			MAJOR CHANGE		EXISTING REC. DEVELOPMENT LEVEL			SOCIAL SETTING			ACCESS		
		DAILY	WEEKLY	RESOURCE TREATMENT	MAINTENANCE	1 PARTY	2 PARTIES	3+ PARTIES	IMPROVE	CLOSE	LEVEL 1	LEVEL 2	LEVEL 3	1-3 IN VIEW-½ MI.	4-6 IN VIEW-½ MI.	7+ IN VIEW	ROAD	ROAD- PRIMITIVE	WATER
2- 141	GOOSENECK LAKE BOAT ACCESS		X			X			X			X				X		X	
142	" " CAMPSITE		X				X					X				X	X		
143	" " BOAT ACCESS		X			X						X				X	X		
144	BANANA LAKE CAMPSITE					X					X						X		
145	" " BOAT ACCESS					X					X						X		
146	SQUARE LAKE CAMPSITE		X			X					X			X			X		
147	" " "		X			X					X			X			X		
148	WOLF LAKE HUNTING CAMP					X					X						X		
149	VAN WINKLE LAKE HUNTING CAMP					X					X						X		
150	CHICAGO LAKE BOAT ACCESS		X			X						X		X			X		
151	" " CAMPSITE		X				X					X		X			X		
152	" " "		X				X					X		X			X		
153	" " "		X				X					X		X			X		
154	" " "		X			X					X			X				X	
155	FISHDAM RIVER HUNTING CAMP					X					X						X		
156	" " " "					X					X						X		
157	" " " "					X					X							X	
158	JOHNSON GUARD STATION HUNTING CAMP							X			X						X		
159	FR 2417 HUNTING CAMP					X					X						X		
160	" " " "					X					X						X		
161	" " " "					X					X						X		
162	WEST LAKE HUNTING CAMP					X					X						X		
163	" " " "					X					X						X		
164	FISHDAM RIVER FISHING ACCESS						X				X						X		
165	INDIAN RIVER HUNTING CAMP						X				X						X		
166	" " CAMPSITE					X					X						X		
167	MURPHY CREEK FISHING ACCESS						X				X						X		
168	HUTT LAKE BOAT ACCESS					X			X		X							X	
169	" " " "					X			X		X							X	
170	LOWER CARR POND FISHING ACCESS																		
171	MIDDLE " " " "																		
172	UPPER " " " "																		
173																			
174																			
175																			

SHORTFORM SUMMARY

SITE #	DESCRIPTIVE SITE NAME	USE		WORK NEED		CAPACITY			MAJOR CHANGE		EXISTING REC. DEVELOPMENT LEVEL			SOCIAL SETTING			ACCESS		
		DAILY	WEEKLY	RESOURCE TREATMENT	MAINTENANCE	1 PARTY	2 PARTIES	3+ PARTIES	IMPROVE	CLOSE	LEVEL 1	LEVEL 2	LEVEL 3	1-3 IN VIEW - ½ MI.	4-6 IN VIEW - ½ MI.	7+ IN VIEW	ROAD	ROAD - PRIMITIVE	WATER
3- 1	INDIAN RIVER																		
2	" "																		X
3	" "																		X
4	" "																		X
5	" "																		X
6	" "																		X
7	" "																		X
8	" "																		
9	" "																		
10	" " FISHING ACCESS		X	X			X				X						X		
11	" " " "					X					X							X	
12	" " " "		X					X			X						X		
13	FR 2473 BLUEBERRY AREA							X									X		
14	HUNTING / BERRY PICKING AREA					X					X							X	
15	TRUMAN LAKE BOAT ACCESS					X					X							X	
16	FH-13 BLUEBERRY AREA							X									X		
17	SHALLOW LAKE BOAT ACCESS						X				X						X		
18	MCNEIL LAKE BERRY PICKING, PARTY AREA							X									X		
19	" " BOAT ACCESS					X					X							X	
20	GARVY PONDS FISHING ACCESS		X				X				X							X	
21	LITTLE INDIAN RIVER HUNTING, FISHING		X				X				X							X	
22	" " " HUNTING CAMP					X					X						X		
23	UN-NAMED LAKE BOAT ACCESS					X					X						X		
24	HARTNEY LAKE BOAT ACCESS		X			X					X			X				X	
25	" " CAMPSITE		X				X				X			X				X	
26	MIRROR LAKE BOAT ACCESS		X		X			X				X					X		
27	STUTTS CREEK HUNTING FISHING CAMP							X			X					X	X		
28	SCOTTS MARSH HUNTER PARKING							X			X						X		
29	TOWNLINE LAKE CAMPSITE			X				X			X			X				X	X
30	U.BR. STUTTS CR. HUNTING FISHING CAMP						X				X						X		
31																			
32	BOOT LAKE BOAT ACCESS						X					X				X		X	
33	SAND LAKE CAMPSITE	X				X						X		X			X		
34	" " BOAT ACCESS	X			X	X						X		X			X		
35	" " CAMPSITE	X					X					X					X		

SHORTFORM SUMMARY

SITE #	DESCRIPTIVE SITE NAME	USE		WORK NEED		CAPACITY			MAJOR CHANGE		EXISTING REC. DEVELOPMENT LEVEL			SOCIAL SETTING			ACCESS		
		DAILY	WEEKLY	RESOURCE TREATMENT	MAINTENANCE	1 PARTY	2 PARTIES	3+ PARTIES	IMPROVE	CLOSE	LEVEL 1	LEVEL 2	LEVEL 3	1-3 IN VIEW-½ MI.	4-6 IN VIEW-½ MI.	7+ IN VIEW	ROAD	ROAD-PRIMITIVE	WATER
3- 36	THORNTON LAKE CAMPSITE					X					X			X			X		
37	" " BOAT ACCESS		X					X				X		X			X		
38	MOCCASIN LAKE BOAT ACCESS					X					X				X			X	
39	RED JACK LAKE CAMPSITE		X	X	X			X	X		X			X			X		
40	COUNCIL LAKE CAMPSITES	X		X	X			X				X			X		X		
41	HIKE LAKE CAMPSITE					X					X						X		
42	INDIAN RIVER CANOE ACCESS		X	X				X	X		X						X		
43	BALDY LAKE CAMPSITE		X				X				X			X			X		
44	" " BOAT ACCESS		X		X		X				X			X			X		
45	TIE LAKE CAMPSITE			X			X				X						X		
46	" " BOAT ACCESS		X	X			X				X						X		
47	McCOMB LAKE BOAT ACCESS		X				X				X			X			X		
48	" " " "						X				X			X			X		
49	" " CAMPSITE(S)							X	X		X				X		X		
50	CAMP CREEK HUNTING CAMP						X				X							X	
51	TIE HILL TOWER - DAY USE		X		X			X					X				X		
52	SKEELS LAKE CAMPSITE		X					X			X				X		X		
53	" " "		X	X				X			X				X		X		
54	BIG ISLAND LAKE CAMPSITE		X					X	X		X			X					X
55	" " " "		X			X					X								X
56	" " " "		X			X					X								X
57	" " " "		X					X	X		X			X			X		
58	" " " BOAT ACCESS	X						X			X			X			X		
59	LITTLE INDIAN RIVER FISHING ACCESS						X				X						X		
60	HERMAN LAKE CAMPSITE							X			X			X				X	
61	" " BOAT ACCESS						X				X			X				X	
62	" " CAMPSITE					X					X			X				X	
63	PETES LAKE PICNIC SPOT		X			X					X								X
64	GRASSY LAKE BOAT ACCESS		X		X		X		X		X			X				X	
65	McKEEVER LAKE CAMPSITE		X					X			X			X			X		
66	LITTLE INDIAN RIVER CAMPSITE							X			X						X		
67	NEDS LAKE BOAT ACCESS			X		X					X						X		
68	" " CAMPSITE						X				X						X		
69	TWILIGHT LAKE CANOE PORTAGE		X			X					X			X					X
70	" " CAMPSITE		X					X			X			X					X

SHORTFORM SUMMARY

SITE #	DESCRIPTIVE SITE NAME	USE		WORK NEED		CAPACITY			MAJOR CHANGE		EXISTING REC. DEVELOPMENT LEVEL			SOCIAL SETTING			ACCESS		
		DAILY	WEEKLY	RESOURCE TREATMENT	MAINTENANCE	1 PARTY	2 PARTIES	3+ PARTIES	IMPROVE	CLOSE	LEVEL 1	LEVEL 2	LEVEL 3	1-3 IN VIEW-½ MI.	4-6 IN VIEW-½ MI.	7+ IN VIEW	ROAD	ROAD- PRIMITIVE	WATER
3- 71	TWILIGHT LAKE CAMPSITE						X				X			X					X
72	" " "							X			X			X					X
73	FR 2451 HUNTING CAMP					X					X						X		
74	KIMBLE LAKE BOAT ACCESS					X					X							X	
75	WEDGE LAKE BOAT ACCESS			X				X			X						X		
76	" " " "			X		X					X						X		
77	McKEEVER LAKE CAMPSITE/BA					X					X			X				X	
78	BLUE JOE LAKE CAMPSITE		X	X				X			X							X	
79	" " " BOAT ACCESS		X			X			X		X							X	
80	RED LAKE BOAT ACCESS						X				X						X		
81	COOKSON LAKE BOAT ACCESS	X		X			X		X		X						X		
82	" " CAMPSITES	X						X	X		X				X		X		
83	LITTLE ISLAND LAKE BOAT ACCESS					X					X						X		
84	BYERS LAKE BOAT ACCESS		X			X					X			X				X	
85	" " CAMPSITE		X			X					X			X				X	
86	JARP LAKE CAMPSITE						X				X						X		
87	TOWNLINE LAKE CAMPSITE		X			X					X			X					X
88	" " "		X			X					X			X					X
89	CATTAIL LAKE CAMPSITE		X			X					X								X
90	Mc INNIS LAKE CAMPSITE		X			X					X								X
91	KLONDIKE LAKE CAMPSITE		X			X					X								X
92																			
93																			
94																			
95																			
96																			
97																			
98																			
99																			
100																			
101																			
102																			
103																			
104																			
105																			

APPENDIX C

SITE SPECIFIC MANAGEMENT RECOMMENDATIONS

Appendix C-1 Sites Needing Resource Treatment or Maintenance Work

RESOURCE TREATMENT

2-2,3,4,5,6,7,8,9,10,12,13,14,15,18,20,22,26,27,28,30,33,34,35,36,37, 38,39,40,41,43,44,45,48,49,51,52,63,64,65,66,67,72,73,79,138

3-10,29,39,40,42,45,46,53,67,73,74,76,77,79,83,84,85,87,88,89,90,91

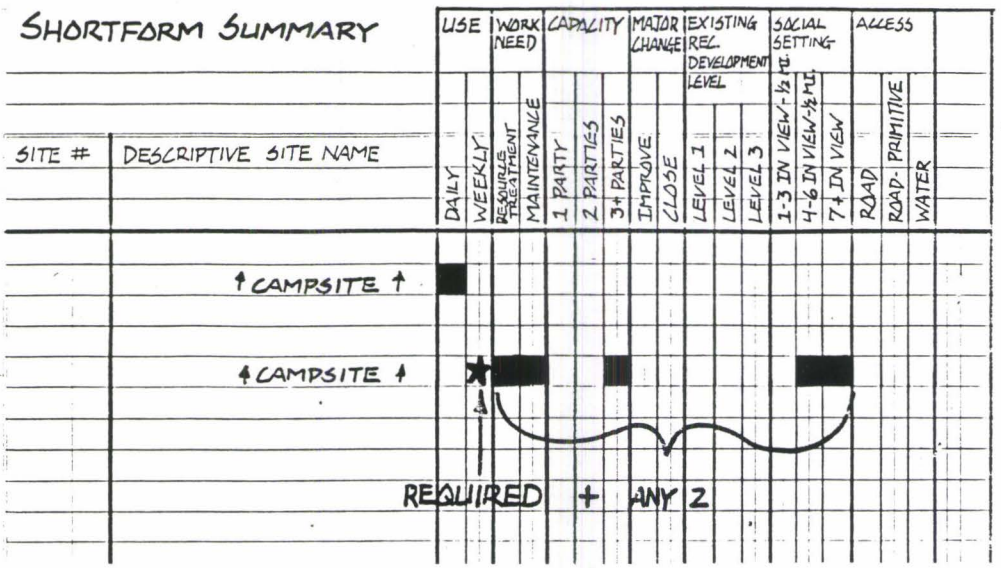
MAINTENANCE

2-2,5,7,9,10,11,13,15,16,32,56,57,59,60,78,129

3-26,34,39,40,44,51,64,73,74,76,77,79,83,84,85,87,88,89,90,91

Appendix C-2 Active Management - Permit Reservation System

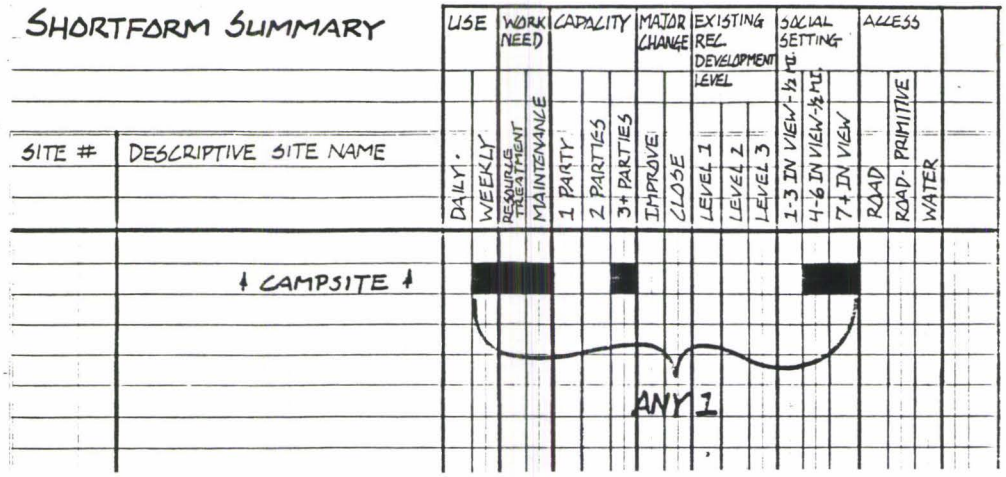
The two keyed line guides below show the selection criteria for these sites. If one campsite on a lake is selected, all other campsites on that lake are included.



SITE NAME	SITE #(s)
Lyman Lake Campsites	2-1,2,4,5,6,7,8,9,10,11,12,13,14
Swan Lake Campsites	2-41,43,44,45,46
Steuben Lake Campsites	2-48,49,51,52,53
Toms Lake Campsites	2-54,55
Ironjaw Lake Campsites	2-56
Nineteen Lake Campsites	2-57,58
Triangle Lake Campsites	2-63,64,66
Leg Lake Campsites	2-81,82
East Lake Campsites	2-103,105,106
Jackpine Lake Campsites	2-118,119
Carr Lake Campsites	2-132
Gooseneck Lake Campsites	2-138,139,140,142
Chicago Lake Campsites	2-151,152,153,154
Sand Lake Campsites	3-33,35
Red Jack Lake Campsites	3-39
Council Lake Campsites	3-40
Skeels Lake Campsites	3-52,53
Blue Joe Lake Campsites	3-78
Cookson Lake Campsites	3-82

APPENDIX C-3 Active Management - Posted

The keyed line guide below shows the selection criteria for these sites. If one campsite on a lake is selected, all other campsites on that lake are included.



SITE NAME	SITE #(s)
Bear Lake Campsite	2-129
Square Lake Campsite	2-146,147
Hartney Lake Campsite	3-25
Townline Lake Campsite	3-29,87,88
Baldy Lake Campsite	3-43
Tie Lake Campsite	3-45
McComb Lake Campsite	3-49
Big Island Lake Campsite	3-54,55,56,57
Herman Lake Campsite	3-60
McKeever Lake Campsite	3-65
Twilight Lake Campsite	3-70,72
Byers Lake Campsite	3-85
Coattail Lake Campsite	3-89
McInnis Lake Campsite	3-90
Klondike Lake Campsite	3-91